

POWER CONTROL IN A COMMUNICATIONS SYSTEMABSTRACT

A communications system, a communications station, a method of controlling the power to transmitters in a communications station, and a storage medium storing instructions for controlling power to a communications satellite. The power consumed by each transmitter is determined, and desired power settings are determined. The power consumed is compared with the desired power settings. If the power settings are not proper, then it is determined whether the desired power is available. If so, then the power settings are adjusted. If not, then load priorities of the transmitters are determined, and if there is sufficient power to provide for the determined load priorities, the power settings are adjusted. The communications station includes variable gain amplifiers (26-1, 26-2,...26-n), to provide intermediate signals; high gain amplifiers (28-1, 28-2,...28-n) for amplifying the intermediate signals to output signals; monitoring power supplies (36-1, 36-2,...36-n) for determining the power provided by the high gain amplifiers, and a power profile processor (32) for adjusting the gain of the variable gain amplifiers.